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Fig. 1a)

ccggcgccag	gagccgccac	catggagttc	cgccaggagg	agtttcggaa	gctagcgggt	60
cgtgctctcg	ggaagctgca	ccgccttctg	gagaagcggc	aggaaggcgc	ggagacgctg	120
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ggaggattta	tctgtcaaaa	atctgcagcc	aacagagttt	tcggctttgc	tattgtggca	480
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catctcccct	accagcagat	tctgcgaaag	caccaaattt	ctcaagaccc	tcttctccct	2340
agcttagcat	aatgtctggg	gaaaca				

Fig. 1b)

1	MEFRQEEPRK	LAGRALGKLH	RLLEKRQEGA	ETLELSADGR	PVTTQTRDPP
51	VVDCTCFGLP	RRYIIAIMSG	LGFCISFGIR	CNLGVAIVSM	VNNSTTHRGG
101	HVVVQKAQFS	WDPETVGLIH	GSFFWGYIVT	QIPGGFICQK	FAANRVFGFA
151	IVATSTLNML	IPSAARVHYG	CVIFVRILQG	LVEGVITYPAC	HGIWSKWAPP
201	LERSRLATTA	FCGSYAGAVV	AMPLAGVLVQ	YSGWSSVFYV	YGSFGIFWYL
251	FWLLVSYESP	ALHPSISEEE	RKYIEDAIGE	SAKLMNPLTK	FSTPWRRFPT
301	SMPVYAIIVA	NFCRSWTFYL	LLISQPAYFE	EVFGFEISKV	GLVSALPHLV
351	MTIIVPIGGQ	IADFLRSRRI	MSTTNVRKLM	NCGGFGMEAT	LLLTVGYSHS
401	KGVAISFLVL	AVGFSGFAIS	GFNVNHLDDA	PRYASILMGI	SNGVGTLSGM
451	VCPIIVGAMT	KHKTREEWQY	VFLIASLVHY	GGVIFYGVFA	SGEKQPWAEP
501	EEMSEKCGF	VGHDQLAGSD	DSEMEDEAEP	PGAPPAPPPS	YGATHSTFQP
551	PRPPPPVRDY				

Fig. 1c)

cgataagctt	gatatacgaat	tccggactct	tgtctcgggcg	cottaaccgcg	gcgttcgggtt	60
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ccgccgcatac	atgtccacca	ccaacgtgcg	caagttgatg	aactgcggag	gcttcggcat	1620
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gccattccag	ggattgattc	tcaccagcgt	ttctgatgga	aaatggcggg	aattcctgca	2700
gcccggggga	tccact					2716

Fig. 1d)

1	MEFRQEEFRK	LAGRALGKLH	RLLEKRQEGA	ETLELSADGR	PVTTQTRDPP
51	VVDCTCFGLP	RRYIIAIMSG	LGFCISFGIR	CNLGVAIVSM	VNNSTTHRGG
101	HVVVQKAQFS	WDPETVGLIH	GSFFWGYIVT	QIPGGFICQK	FAANRVFGFA
151	IVATSTLNML	IPSAARVHYG	CVIFVRILQG	LVEGVITYPAC	HGIWSKWAPP
201	LERSRLATTA	FCGSYAGAVV	AMPLAGVLVQ	YSGWSSVFYV	YGSFGIFWYL
251	FWLLVSYESP	ALHPSISEEE	RKYIEDAIGE	SAKLMNPLTK	FSTPWRRFFT
301	SMPVYAIIVA	NFCRSWTFYL	LLISQPDYFE	BVFGFEISKV	GLVSALPHLV
351	MTIIVPIGGQ	IADFLRSRRI	MSTTNVRKLM	NCGGFGMEAT	LLLTVGYSHS
401	KGVAISFLVL	AVGFSGFAIS	GFNVNHLDIA	PRYASILMGI	SNGVGTLSGM
451	VCPIIVGAMT	KHKTREEWQY	VFLIASLVHY	GGVIFYGVFA	SGEKQPWAEP
501	EEMSEKCGF	VGHDQLAGSD	DSEMEDEAEP	PGAPPAPPPS	YGATHSTFQP
551	PRPPPPVRDY				

Fig. 1e)

gaattcggca	cgagcggagc	tgcgggggccc	ggccggggccc	gggcgggaccc	cgggatccc	60
gacgcggccc	cccggggccc	cgggcggggg	gattggcagg	ggacccgcgt	gggcacagcc	120
accatggagt	tccggcagga	ggagtttcgg	aagctggcgg	ggcgcgccct	ggggaggctg	180
caccggttac	tggagaagcg	gcaggaaggc	gcgagacat	tggagctgag	cgccgacggg	240
cgccagtgga	ccacacacac	gcgggacccg	ccggtggtgg	actgcacttg	ctttggcctc	300
cctcgccgct	acatcatcgc	gatcatgagc	ggctctgggtt	tctgcatcag	ctttggcatc	360
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aaattcgag	ccaacagggg	ctttggcttt	gccattgtgg	ctacctccac	cctaaatatg	600
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gggggtgaagc	tgcacactag	cagtttcaag	ctcgtgccga	attc		

Fig. 1f)

```
1   MEFRQEEFRK LAGRALGRLH RLLEKRQEGA ETLLELSADGR PVTTHTRDPP VVDCTCFGLP
51  RRYIIAIMSG LGFCISFGIR CNLGVAIVSM VNNSTTHRGG HVVVQKAQFN WDPETVGLIH
101 GSFFWGYIVT QIPGGFICQK FAANRVFGFA IVATSTLNML IPSAARVHYG CVIFVRILQG
151 LVEGVITYPAC HGIWSKWAPP LERSRLATTA FCGSYAGAVV AMPLAGVLVQ YSGWSSVFYV
201 YGSFGIFWYL FWLLVSYESP ALHPSISEEE RKYIEDAIGE SAKLMNPVTK FNTPWRRFFT
251 SMPVYAIIVA NFCRSWTFYL LLISQPAYFE EVFGFEISKV GLVSALPHLV MTIIVPIGGQ
301 IADFLRSRHI MSTTNVRKLM NCGGFGMEAT LLLVVGYSHS KGVAISFLVL AVGFSGFAIS
351 GFNVNHL DIA PRYASILMGI SNGVGTLSGM VCPPIVGAMT KHKTREEWQY VFLLIASLVHY
401 GGVIFYGVFA SGEKQPWAEF EEMSEKCGF VGHDQLAGSD ESEMEDEVEP PGAPPAPPPS
451 YGATHSTVQP PRPPPPVRDY
```

Fig. 1g)

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1      cggcgcgccc ggccccgcggg cgggggggatt ggcagggggac ccgcgtgggc acagccacca
61     tggagttccg gcaggaggag ttccggaagc tggcggggcg cgccctgggg aggctgcacc
121    gggttactgga gaagcgcgag gaaggcgcgg agacactgga gctgagtgcc gacgggcggc
181    cagtgaccac gcacactcgg gaccgcctg tgggtggactg cacctgcttt ggccctccctc
241    gtgcgtacat catcgccatc atgagcggtc tgggtttctg tatcagcttt ggcattccgct
301    gcaacctggg cgtggccatc gtgtccatgg tcaacaacag cacaacccac cgtggggggc
361    acgtgggtgg gcagaaaagg cagttcaact gggatccaga gactgtcgcc ctcatacatg
421    gtcctctttt ctggggctac attgtcactc agattcctgg aggattttat tgccaaaaat
481    tcgcagccaa cagggtcttt ggctttgcca ttgtggctac ctccacccta aacatgttga
541    tcccttcagc agcccgcgtt cactatggct gtgtcatctt cgtgaggatc cttcagggat
601    tgggtggagg gggtcacata cctgcttgcc atggcatctg gagcaaatgg gccctccct
661    tagaacggag tcggctggca acgacagcct tttgcgggtc ctatgctggg gcggtggttg
721    ccatgccctt ggctggggtc cttgtgcagt attcaggatg gagttctgtc ttctatgtct
781    atggcagctt cgggactctt tggtaacctg tctggttgct tgtctcctat gagtaccgg
841    cagtcacccc cagcatctct gaggaggagc gcaaatatcat tgaggatgcc atcggggaga
901    gcgccaagct catgaaccct gttacgaagt ttaacacacc ctggaggcgc ttcttactgt
961    ccatgccctg ctatgccatc atcgttgcca acttttgccg cagctggacc ttctacctgc
1021   tctctcatctc tcagcccggc tactttgaag aagtgttcgg ctttgagatc agcaagggtg
1081   ggcgtggtgc ggctgtgctt cactttgtca tgaccatcat cgtaccattt ggaggccaga
1141   tcgctgactt tttgcgcagt cgtcacataa tgtccactac caacgtcgga aagctcatga
1201   actgcggggg tttcgggatg gaagccacgc tgctgctggg ggtcggatac tcgcactcca
1261   agggcggtggc catctccttc ctggctcctg ctgtgggctt cagtggcttt gccatctctg
1321   ggtttaacgt gaaccacttg gacatcgccc ctgcctatgc cagcatcttg atgggcattt
1381   ccaatggcgt gggcacactg tctgggatgg tgtgccccat catcgtgggt gcaatgacca
1441   agcacaagac gcgggaggag tggcagtagc tgttctctcat agcctccctg gtgcaactacg
1501   gcggtgtcat cttctatggg gtctttgctt cgggagagaa gcagccgtgg gcagagccgg
1561   aggagatgag cgaggagaag tgtggtttg ttggccacga ccagctgggt ggagtgacg
1621   aaagtgaat ggaggacgag gctgagcccc caggggcgcc ccccgcccg cctccgtct
1681   acggggccac acacagcaca gtgcagctc cgaggccccc gccccctgtc cgggactact
1741   gaccacgggc ctcccactgt ggggcagttt ccaggacttc cactccatac acctctagcc
1801   tgagcggcag tgtcgaggaa cccactctc cccctgcctc aggtttaaga tgcaagtct
1861   ccttggttcc cagtgtctgc cgaccagccc tcttccctc tcaactgctt cctcggggg
1921   gtgaagctgc acactagcag tttcaaggat acccagactc ccctgaaagt cgttctccgc
1981   ttgtttctgc ctgtgtgggc tcaaatctcc cctttgaggg ctttatttgg agggacagtt
2041   caacctcttc ctctcttggt gttttgaggt ttcacccctt cccccaagac ccagggatt
2101   ctcagctac cccgagatta ttcaggtggg cccctactca gaagacttca tggctgctct
2161   ctattagttt caaggctcgc ctaaccaatt ctacattttt ccaagctggg ttaacctaac
2221   caccaatgcc gccgttccca ggactgatcc tcaccagcgt ttctgaggga aaatggcggt
2281   ttcaagtcct cccaccccc ttttcttccc tcgtccctc accagcacac tttgcggggc
2341   cctgacctta gcttagtaca atcattgtcc agggaaatgg ccaaaatggc ctctgtcacc
2401   ccgtgctctt tttctgactc agttttcagg tctcagtagt ggctgcccga agctattaat
2461   tcagcggctc gaggccacct cttcctcccc gtggtgggtt caggatcccc ctgcggcccc
2521   cccccccaaa tcttgcact ttattctcct ggggtggttc aggcgcctt cggtttctca
2581   gtggccattt gttgtgtgtc cctcaggggg taaatgattc caaatctggg gtgcttcccc
2641   tcatagacac cctctctca acgtagaaat ctgggtgggg gtgaggtgtg tgagagaagt
2701   tacagaatcc caggaaagg agcggggctg ggaggagagg gttgttctct gggcagggct
2761   gtgtcttggt gtctgtctct gtgacgtaaa tctgcccctg cccaccccca ctccaataa
2821   acgtctggt gtacgg

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Fig. 1h)

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1      MEFRQEEFRK LAGRALGRLH RLLEKQREGA ETELELSADGR PVTTHTRDPP VVDCTCFGLP
61     RRYIIAIMSG LGFCISFGIR CNLGVAVISM VNNSTHTRGG HVVVQKAQFN WDPETVGLIH
121    GSFFWGYIVT QIPGGFICQK FAANRVFGFA IVATSTLNML IPSAARVHYG CVIFVRILQG
181    LVEGVITYPAC HGIWSKWAPP LERSRLATTA FCGSYAGAVV AMPLAGVLVQ YSGWSSVFYV
241    YGSFGIFWYL FWLLVSYESP ALHPSISEEE RKYIEDAIGE SAKLMNPVTK FNTPWRRFFT
301    SMPVYAIIVA NFCRSWTFYL LLISQPAYFE EVFGFEISKV GLVSALPHLV MTIIVPIGGQ
361    IADFLRSRHI MSTTNVRKLM NCGGFGMEAT LLLVVGYSHS KGVAISFLVL AVGFSGFAIS
421    GFNVNHLDA PRYASILMGI SNGVGTLSGM VCPIIVGAMT KHKTREEWQY VFLIASLVHY
481    GGVIFYGVFA SGEKQPWAEF EEMSEBCKGF VGHDQLAGSD ESEMEDEAEF PGAPPAPPPS
541    YGATHSTVQP PRPPPPVRDY

```


Fig. 2a)

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```

Fig. 2 b)

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1    MESVKQRILA PGKEGLKNFA GKSLGQIYRV LEKKQDTGET IELTEDGKPL EVPERKAPLC
61   DCTCFGLPRR YIIAIMSGLG FCISFGIRCN LGVAIVDMVN NSTIHRGGKV IKEKAKPNWD
121  PETVGMIHGS FFWGYIITQI PGGYIASRLA ANRVFGAAIL LTSTLNMLIP SAARVHYGCV
181  IFVRILQGLV EGVYYPACHG IWSKWAPPLE RSRLATTSFC GSYAGAVIAM PLAGILVQYT
241  GWSSVFYVYG SFGMVWYMFV LLVSYESPAK HPTITDEERR YIEESIGESA NLLGAMEKFK
301  TPWRKFFTSM PVYAIIVANF CRSWTFYLLL ISQPAYFEEV FGFEISKVGM LSAVPHLVM
361  IIVPIGGQIA DFLRSKQILS TTTVRKIMNC GGFGMEATLL LVVGYSHTRG VAISFLVLAV
421  GFSGFAISGF NVNHLDIAPR YASILMGISN GVGTLSGMVC PIIVGAMTKN KSREEWQYVF
481  LIAALVHYGG VIFYAIFASG EKQPWADPEE TSEKCGFIH EDELDEETGD ITQNYINYGT
541  TKSYGATTQA NGGWPSGWKE KEEFVQGEVQ DSHSYKDRVD YS

```

Fig. 2c)

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gttctattta aaaaaaaaaa aa

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Fig. 2d)

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1   MESVKQRILA PGKEGIKNFA GKSLGQIYRV LEKKQDNRET IELTEDGKPL
51  EVPEKKAPLC DCTCFGLPRR YIIAIMSGLG FCISFGIRCN LGVAIVDMVN
101 NSTIHRGGKV IKEKAKFNWD PETVGMHGS FFWGYIITQI PGGYIASRLA
151 ANRVFGAAIL LTSTLNMLIP SAARVHYGCV IFVRILQGLV EGVTPACHG
201 IWSKWAPPLE RSRLATTSFC GSYAGAVIAM PLAGILVQYT GWSSVFYVYG
251 SFGMVWYMFV LLVSYESPAK HPTITDEERR YIEESIGESA NLIGAMEKFK
301 TPWRKFFTSM PVYAIIVANF CRSWTFYLLL ISQPAYFEEV FGFEISKVGM
351 LSAVPHLVMT IIVPIGGQIA DFLRSKQILS TTTVRKIMNC GGFGMEATLL
401 LVVGYSHTRG VAISFLVLAV GFSGFAISGF NVNHLDIAPR YASIIMGISN
451 GVGTLSGMVC PIIVGAMTKN KSREEWQYVF LIAALVHYGG VIFYALFASG
501 EKQPWADPEE TSBEKCGFIH EDELDEETGD ITQNYINYGT TKSYGATSQE
551 NGGWPNWGEK KEEFVQESAQ DAYSYKDRDD YS

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Fig. 2e)

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1      ggcacgagggc tcagtccttaa ttccactctg ccactctgccc gcagagcaca attacgcggg
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901    gctgtaacct gggcgtggcc atcgtggaca tgggtcaaca cagcactatc caccgcggag
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2161   ctgaggaaac aagcgaagaa aaatgtggct tcattcacga agatgaactg gatgaagaaa
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2461   aatgtggtgt gaacatgtaa acatatcaac caagcaagtc ttgctgttca aaaaaaaaaa
2521   aaaaaaaaaa

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Fig. 2f)

```

1      MESVKQRILA PGKEGKFNFA GKSLGQIYRV LEKKQDNRET IELTEDGKPL EVPEKKAPLC
61     DCTCFGLPRR YIIAIMSGLG FCISFGIRCN LGVAIVDMVN NSTIHRGKV IKEKAKFNWD
121    PETVGMHGS FFWGYIITQI PGGYIASRLA ANRVFGAAIL LTSTLNMLIP SAARVHYGCV
181    IFVRILQGLV EGVTPACHG IWSKWAPPLE RSRLATTSFC GSYAGAVIAM FLAGILVQYT
241    GWSSVFPVYG SFGMVWYMFV LLVSYESPAC HPTITDEERR YIEESIGESA NLLGAMEKFK
301    TPWRKFFTSM PVYAIIVANF CRSWTFYLLL ISQPAYFEEV FGFEISKVGM LSAVPHLVMT
361    IIVPIGGQIA DFLRSKQILS TTTVRKIMNC GFGMEATLL LVVGYSHTRG VAISFLVLAV
421    GFSGFAISGF NVNHLDIAPR YASILMGISN GVGTLGSMVC PIIVGAMTKN KSREWQYVF
481    LIAALVHYGG VIFYALFASG EKQPWADPEE TSEEKCGFIH EDELDEETGD ITQNYINYGT
541    TKSYGATSQE NGGWPNWEK KEFVQEGAQ DAYTYKDRDD YS

```

Figure 3

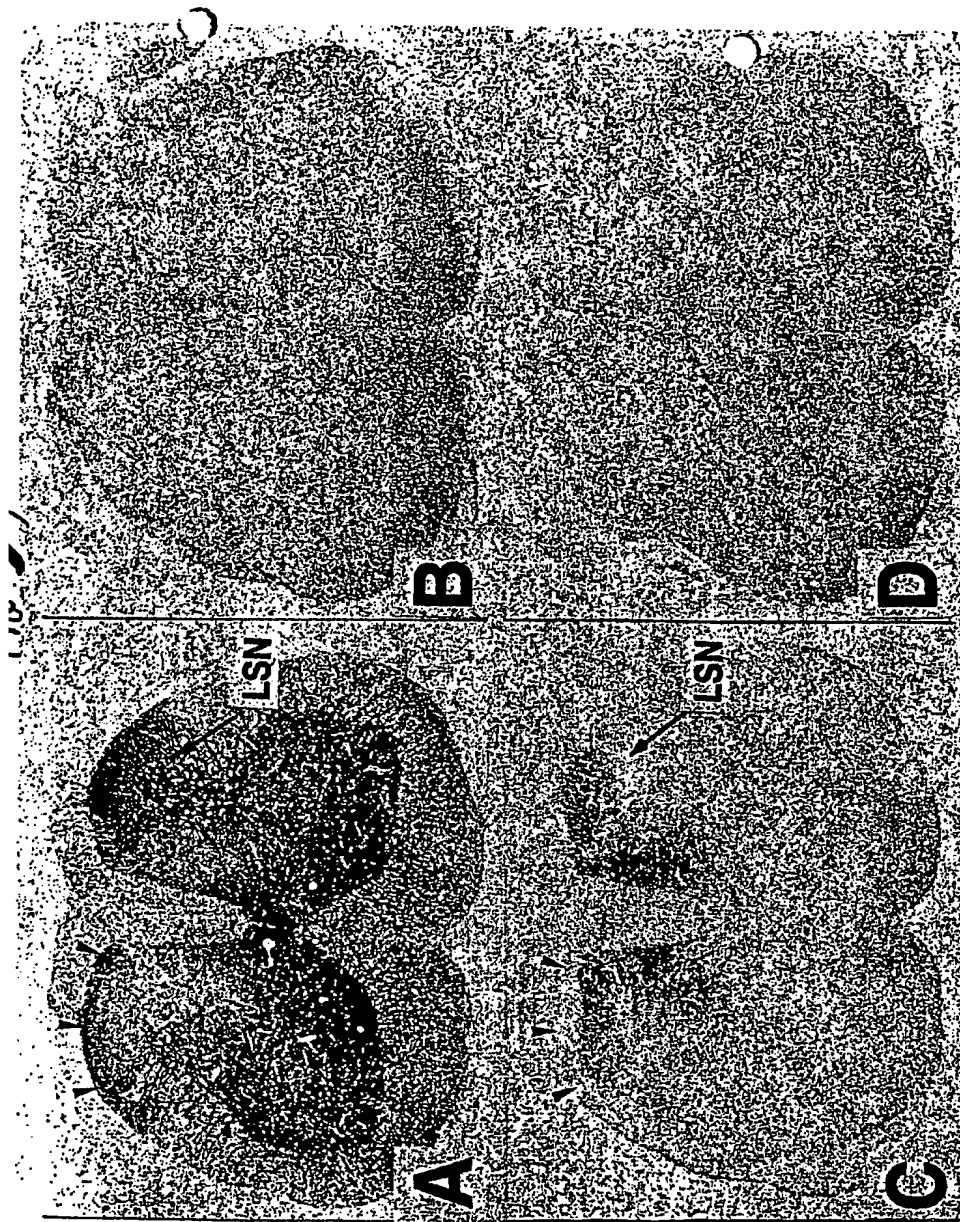


Figure 4

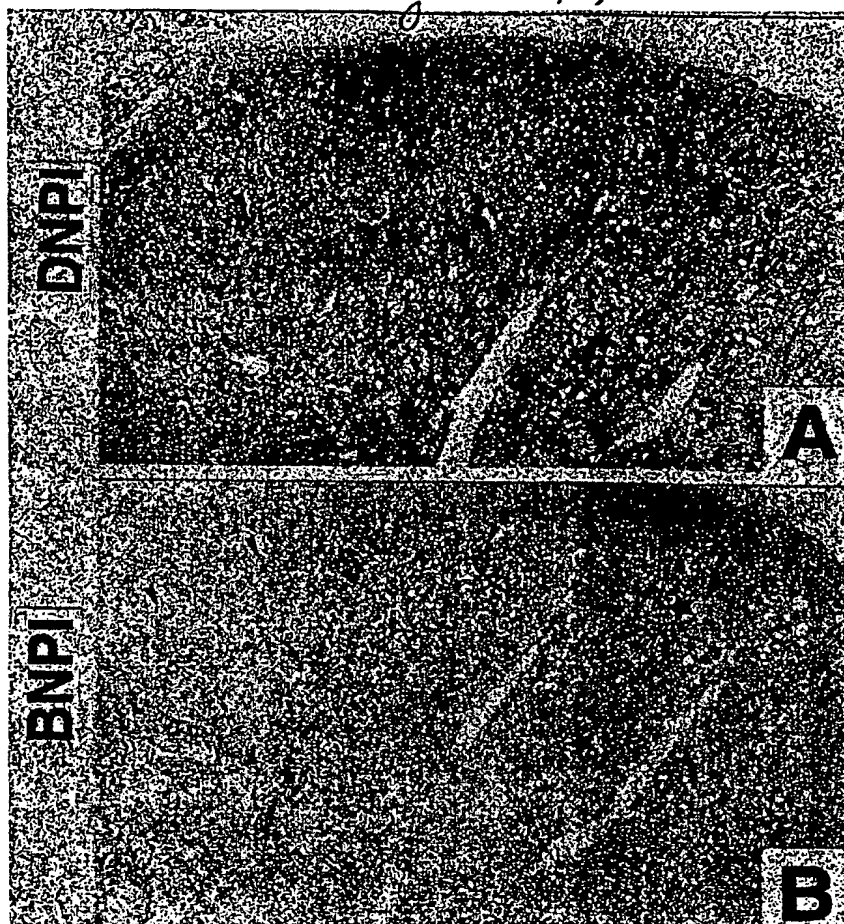


Figure 5

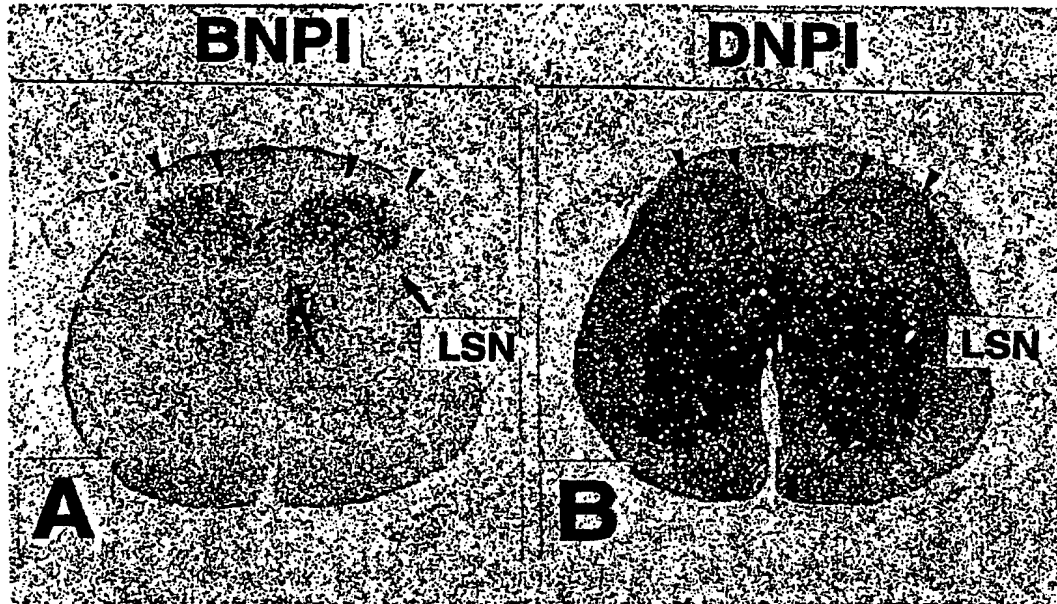


Figure 6

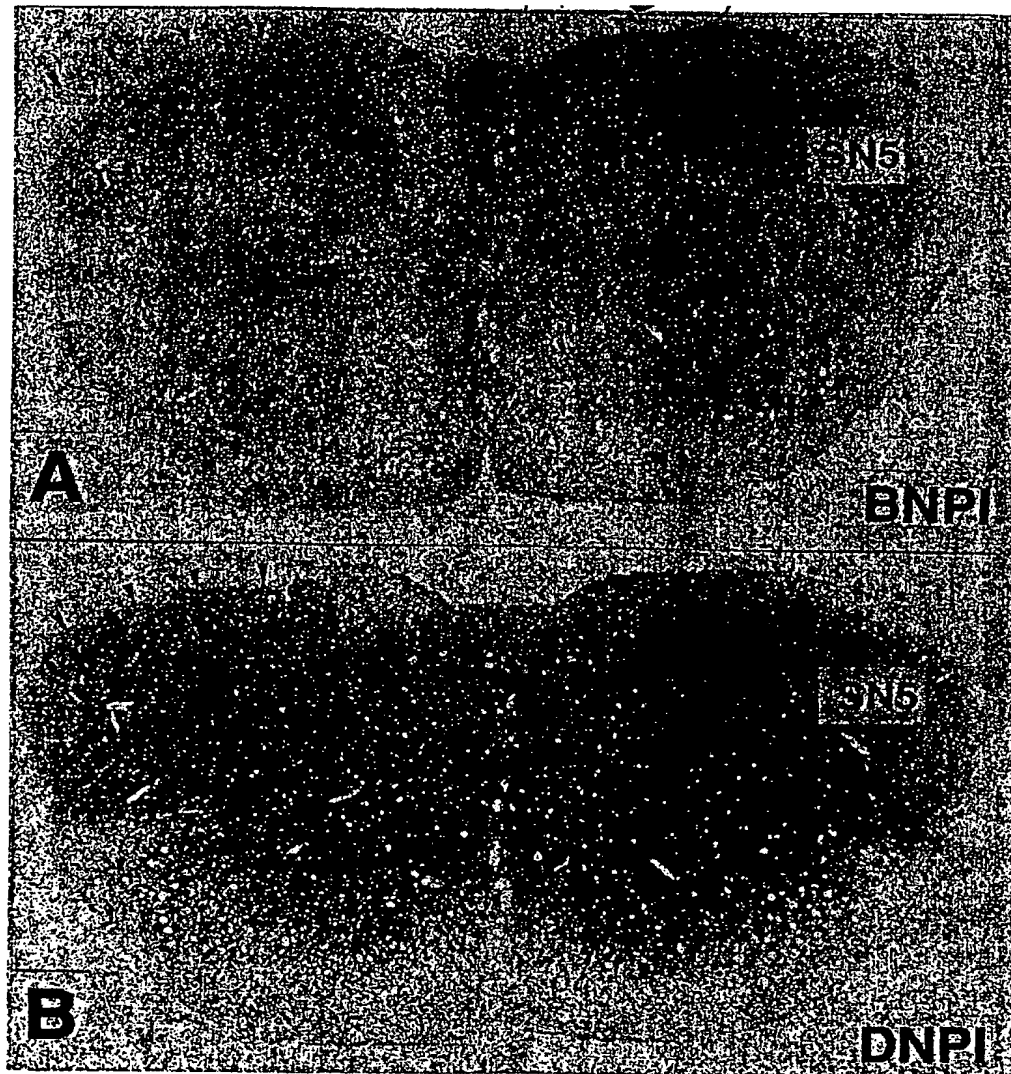


Figure 7

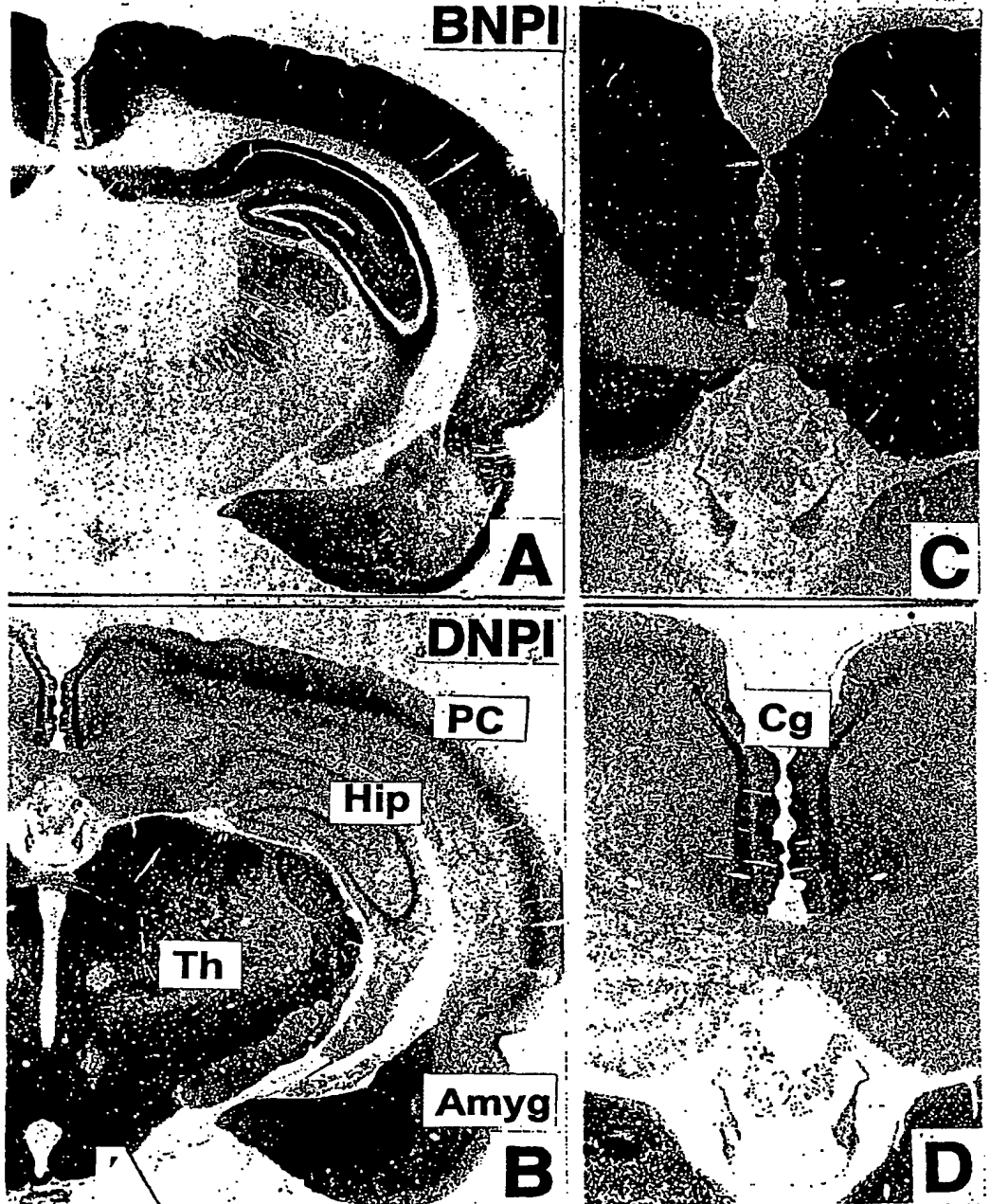


Figure 8

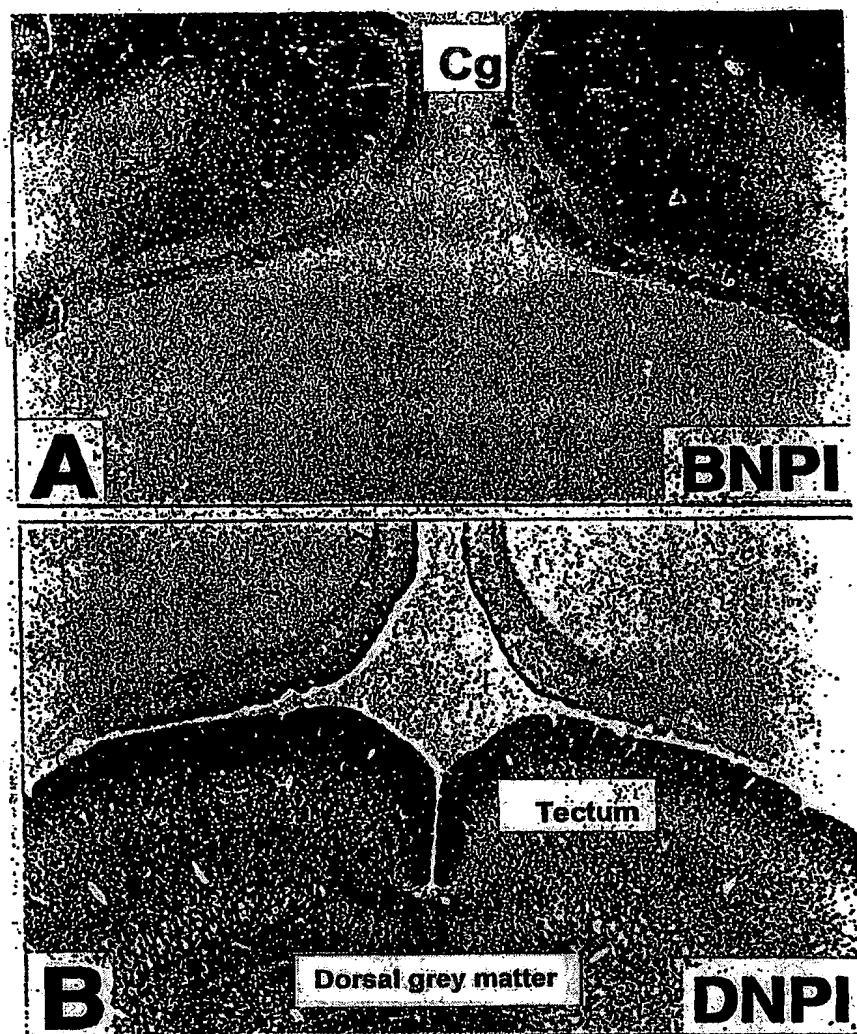


Figure 9

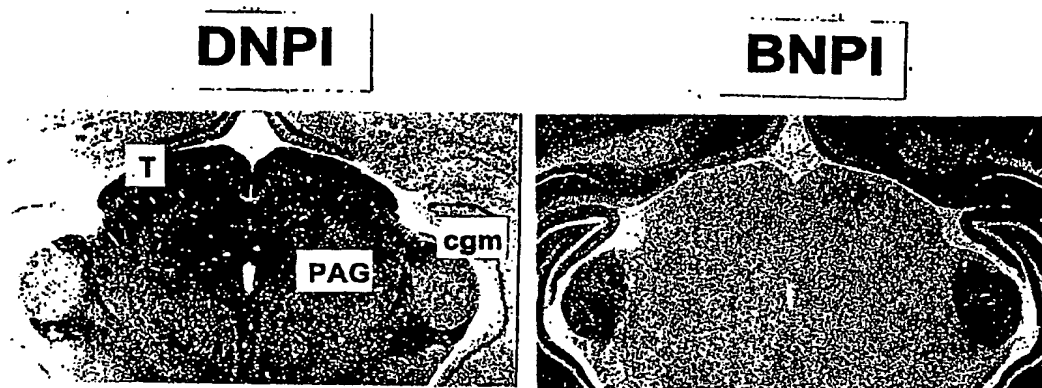
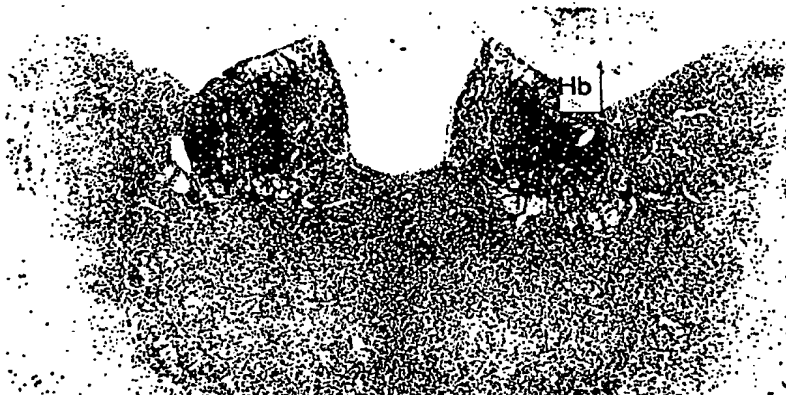
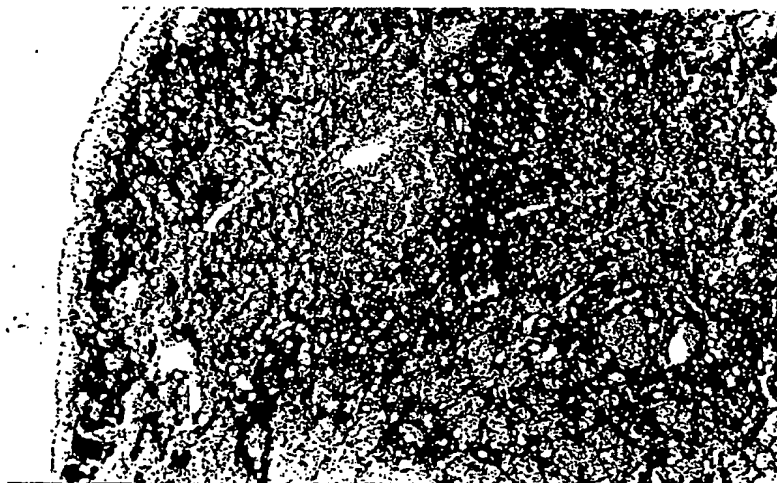


Figure 10

DNPI



DNPI



BNPI



Figure 11

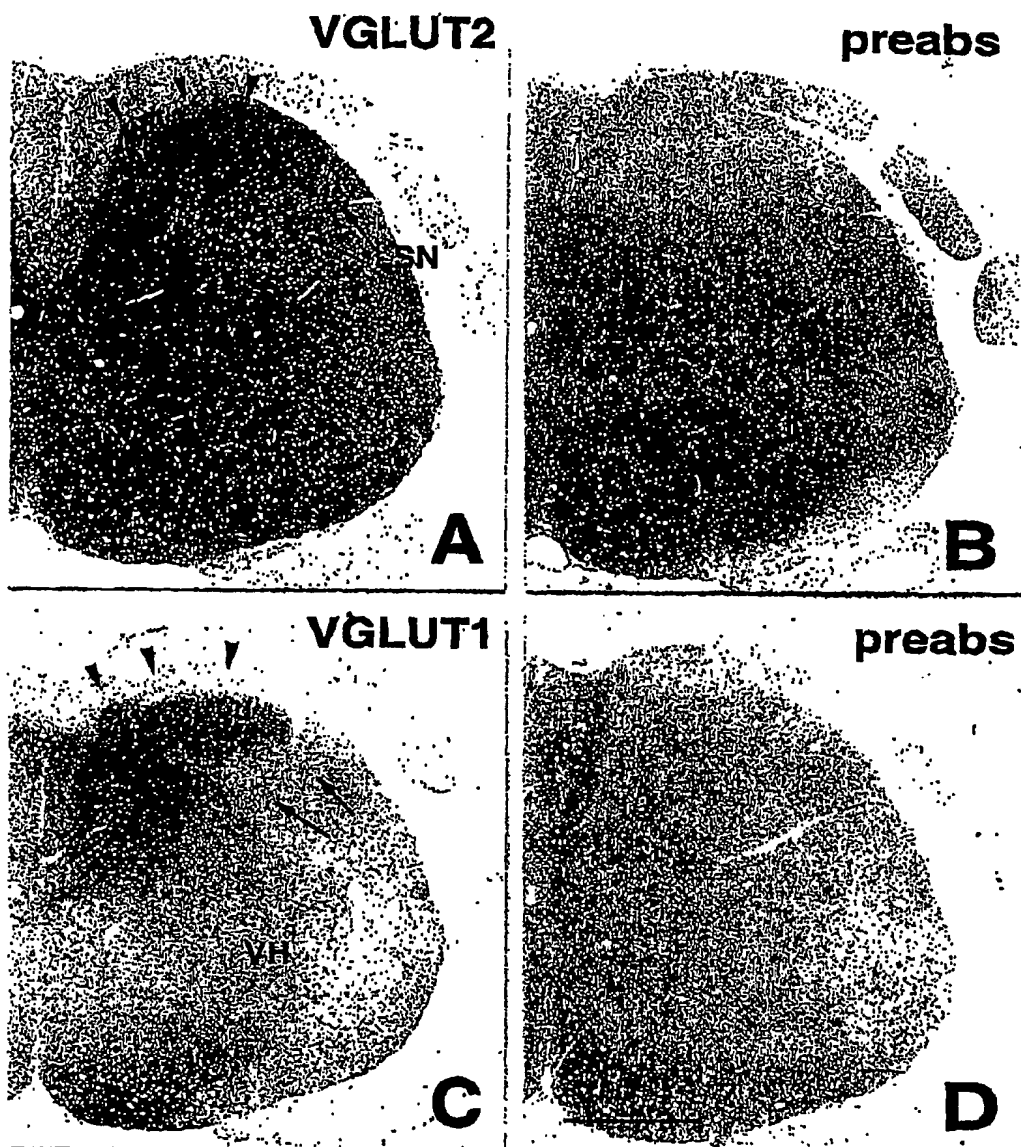


Figure 12

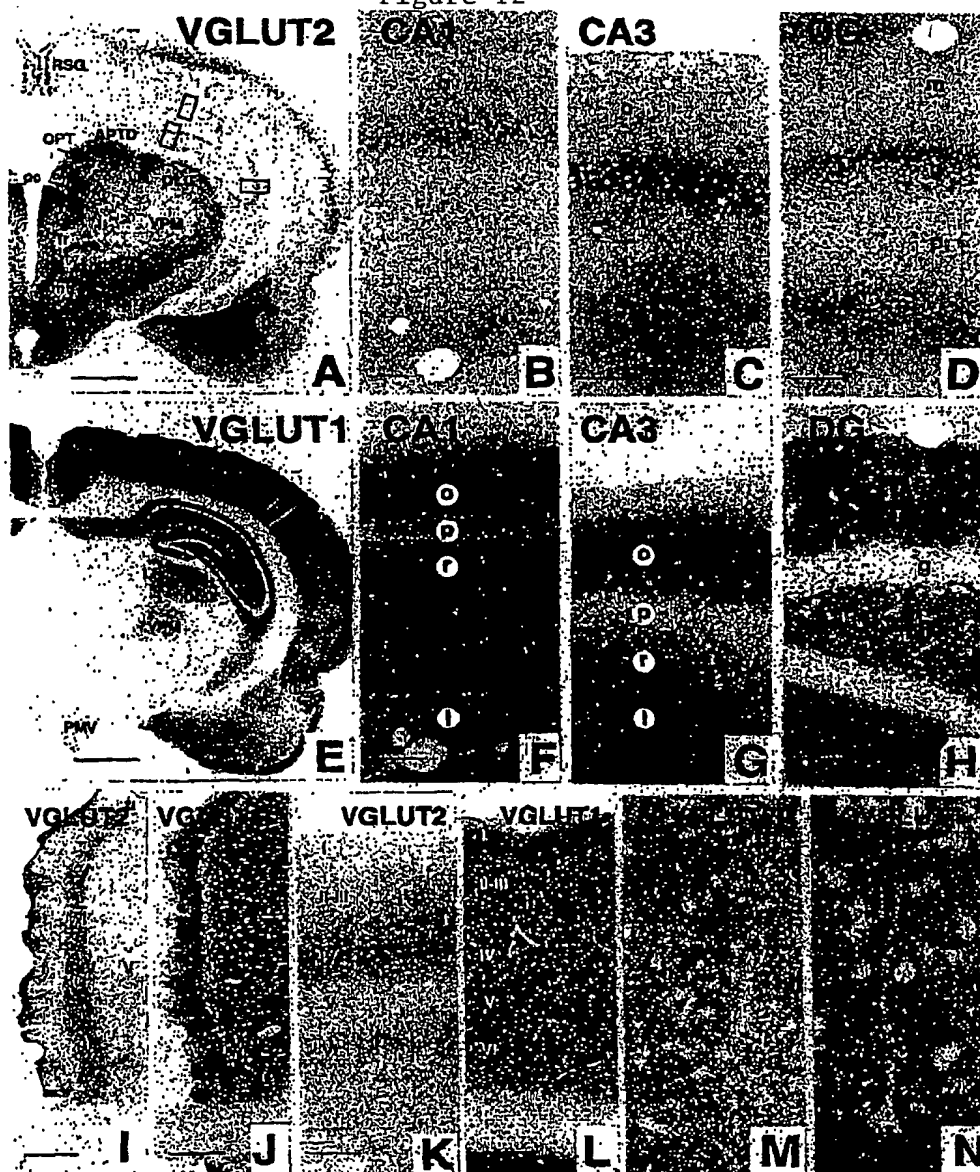


Figure 13

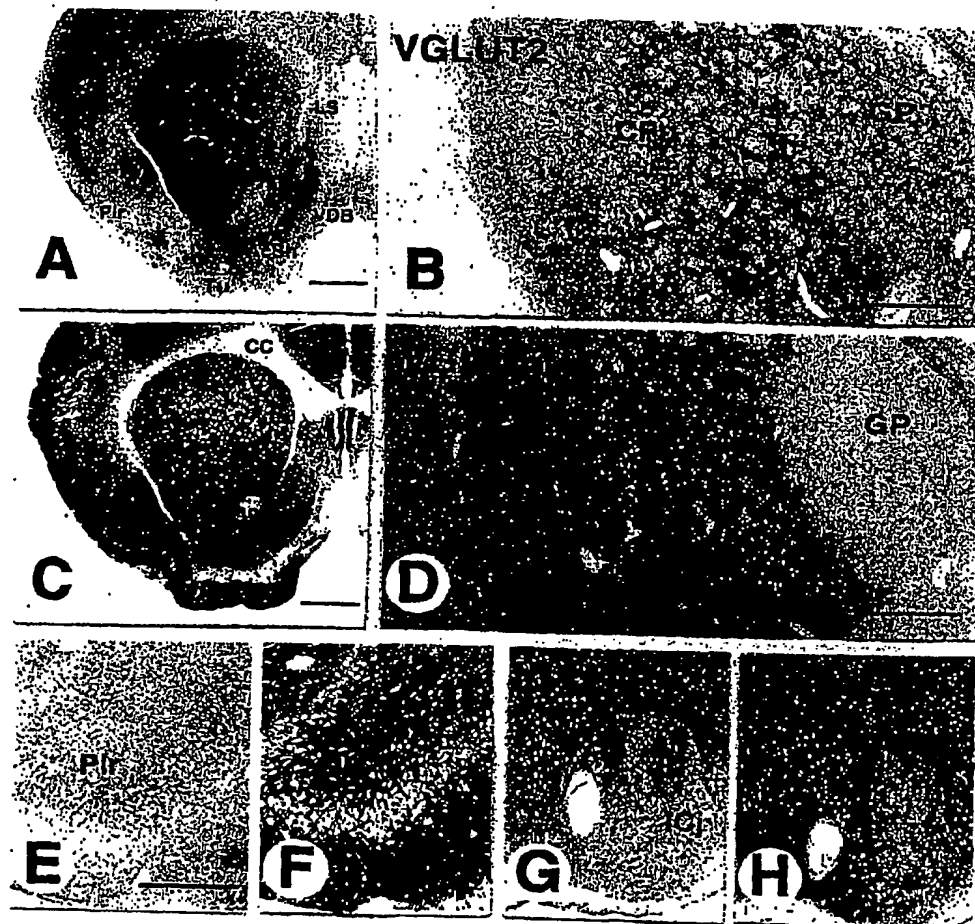


Figure 14

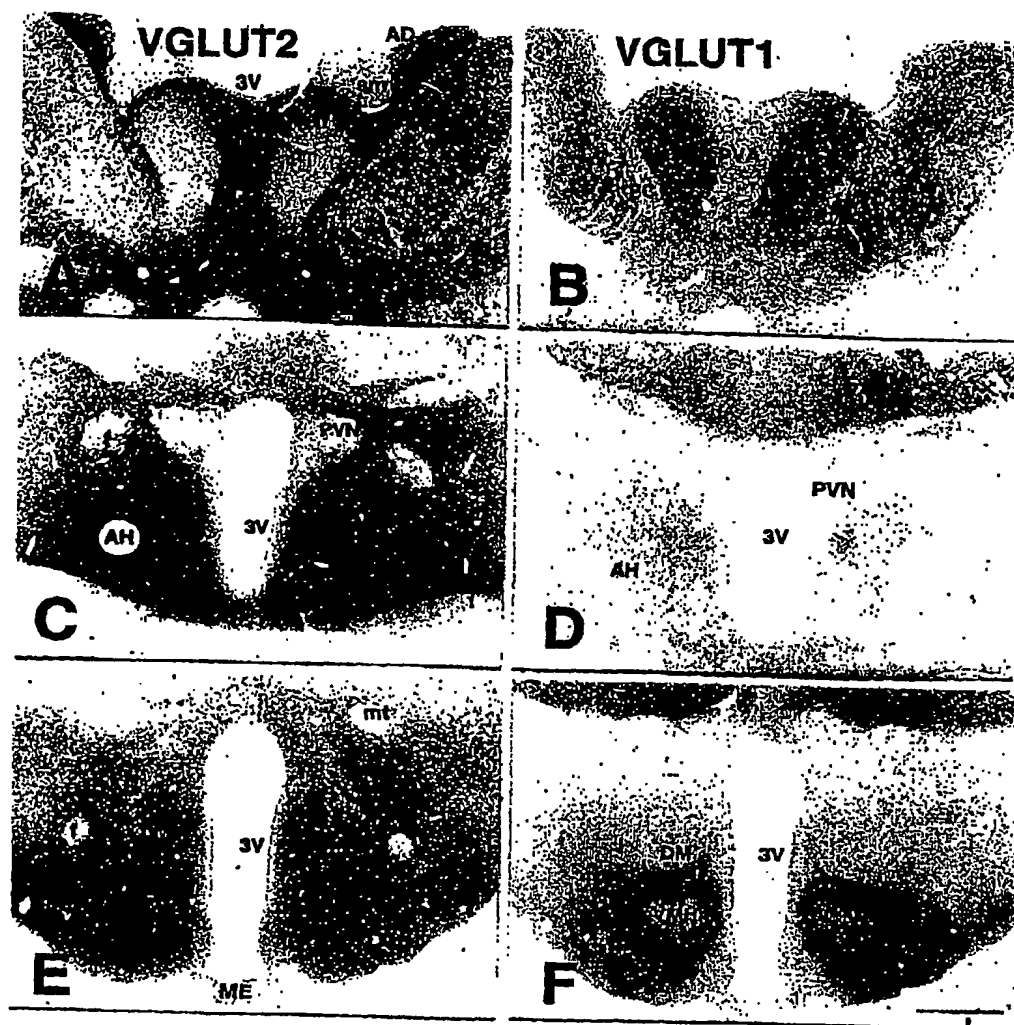


Figure 15

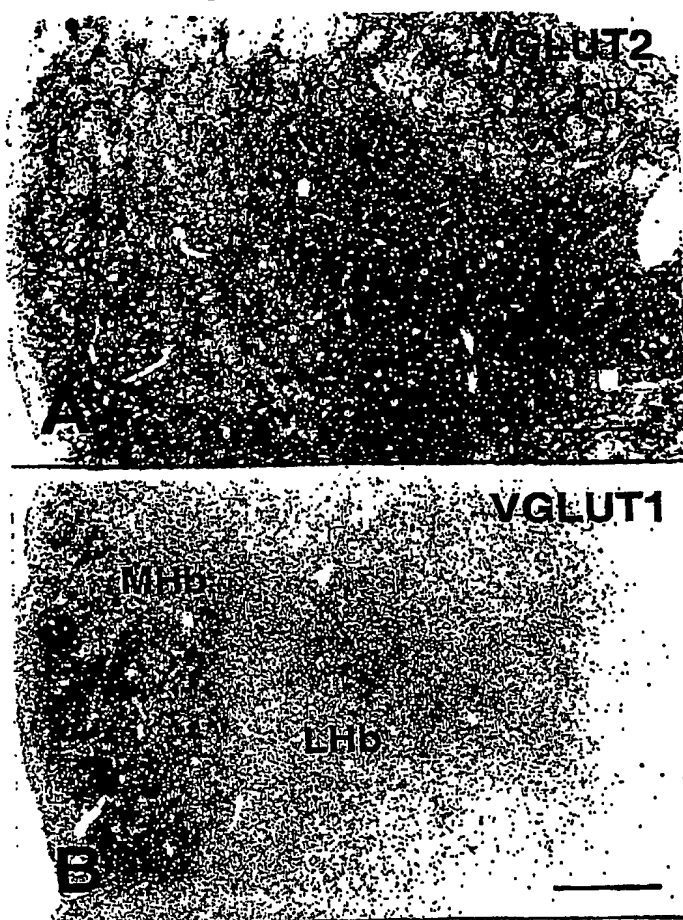


Figure 16



Figure 17

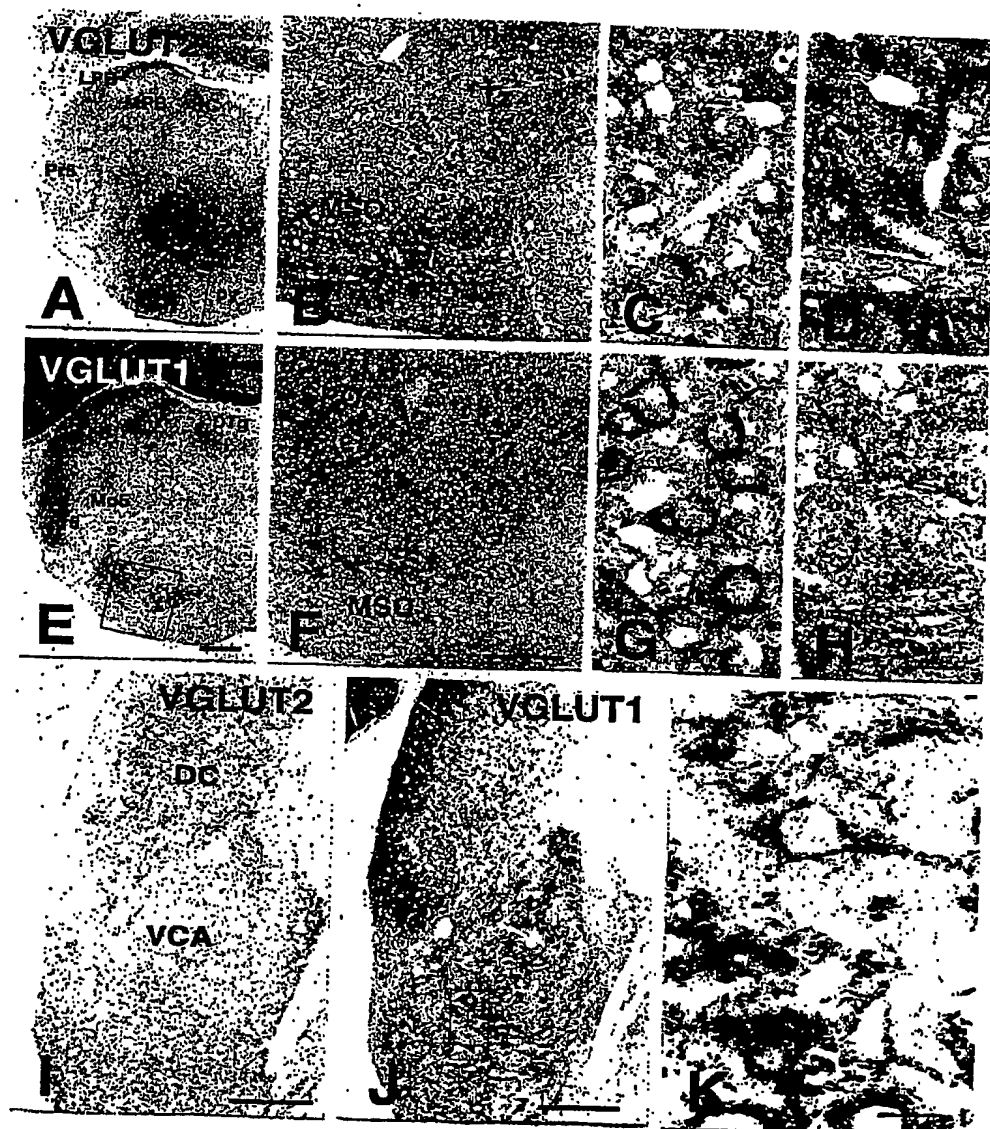


Figure 18

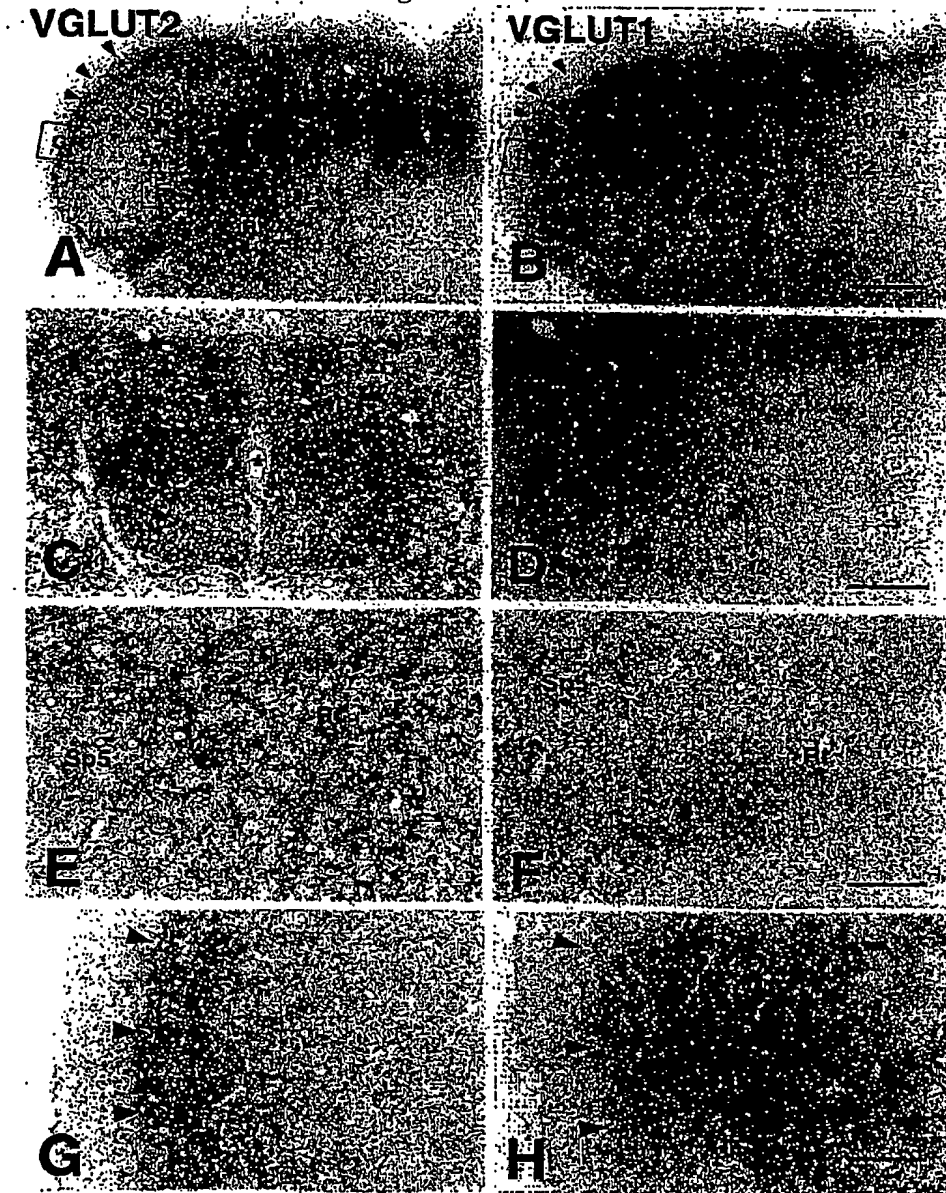


Figure 19

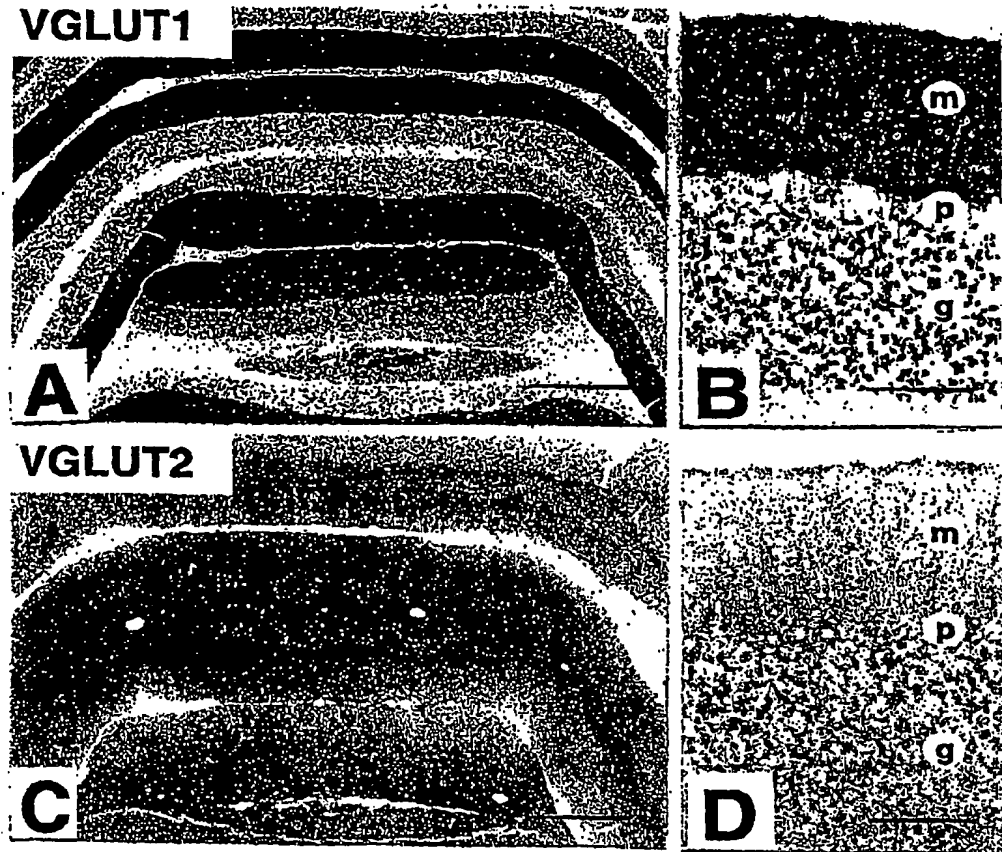


Figure 20

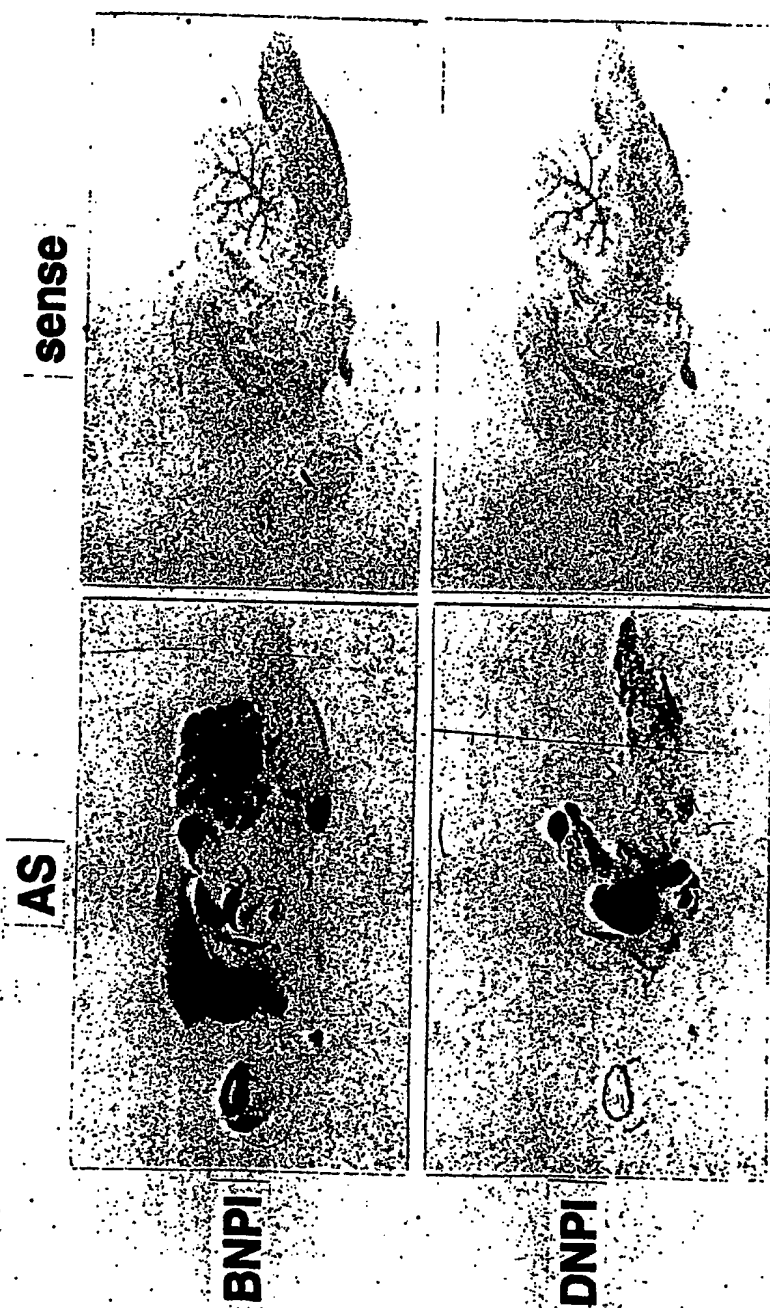


Figure 21

